

# DUCT AIR

## DC Inverter industrial air conditioning



**IDEAL FOR THE AIR  
CONDITIONING OF  
INDUSTRIAL  
BUILDINGS**



**INSTALLATION / REFERENCE  
MANIFATTURA EROS MONTEGRANARO (FM)**

The air-to-air DUCT AIR heat pump unit is the best solution for heating and conditioning large indoor spaces such as warehouses, production areas, workshops, etc.

DUCT AIR allows you to avoid the hydraulic circuit, while the installation between the outdoor and indoor units is simple, immediate and economical, drastically reducing installation costs and building work costs.

A highly noiseless indoor unit capable of completely dissipating the transferred power is combined with the outdoor unit via the R410A gas line. By avoiding heat exchange with water, these units have high efficiency and performance and eliminate the problem of the risk of ice during the coldest winter periods, which characterize air / water systems.

Accorroni can also provide tailor-made intake plenums to further increase aeration performance by taking the air from below in order to have a better efficiency of the machines up to 10% more performance.

### DUCT AIR PRESENTS THE FOLLOWING FEATURES:

- Ecological R410A refrigerant gas that does not damage the atmospheric ozone, refrigerant control via electronic expansion valve.
- High efficiency compressor and DC Inverter fan motors.
- The DC inverter compressors make the air output from the outdoor unit modular according to the cooling or heating needs of the area that the indoor unit controls. This advanced system guarantees precise temperature regulation and highly efficient energy use, making a significant contribution to the environment. Based on the load and pressure, the outdoor unit controls the speed of the DC fan to achieve minimum energy consumption.
- Axial fans with horizontal expulsion, directly coupled electric motor, controlled by inverter. New design of the DC Inverter fan to reduce the noise level and increase the air flow.
- Safety devices: high pressure switch, fan motor safety thermostat, overcurrent relay, inverter overload protection, fuse cap, fuses.
- Microprocessor for control and complete self-diagnosis management.
- Defrosting method with temperature probes.
- Wide operating range: cooling from -5°C to 48°C; heating from -20°C to 24°C.

### DUCTABLE DC INVERTER

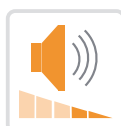
MODEL		COOLING POWER kW	THERMAL POWER kW	€
DUCT AIR INDOOR UNIT HVD 2805	cod. 65000002	28,50	28,50	4.070,00
DUCT AIR OUTDOOR UNIT HCV 2806	cod. 65000001			7.880,00



REFRIGERANT  
GAS



SPEED  
ADJUSTABLE



VENTILATION  
SILENT



RESTART  
AUTOMATIC



INSTALLATION  
EASY

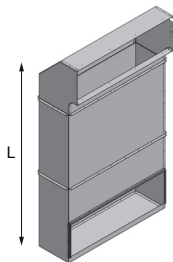
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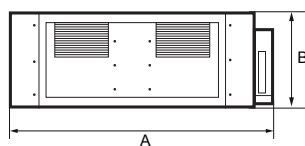
### ACCESSORIES



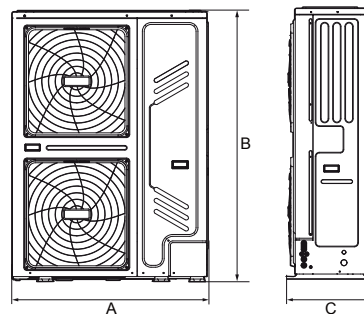
		€
Digital weekly programmer clock	cod. 35639900	110,00
DUCT AIR support shelf	cod. 65000003	1.320,00



Air intake plenum with G4 DUCT AIR filter - L. 1,5	cod. 65000004	2.050,00
Air intake plenum with G4 DUCT AIR filter - L. 2,2	cod. 65000005	2.740,00



	A	B	C	kg
DUCT AIR INDOOR UNIT	1454	515	931	130



	A	B	C	kg
DUCT AIR OUTDOOR UNIT	1120	1558	528	144

TECHNICAL DATA SHEET	UM	DUCT AIR INDOOR UNIT
Nominal cooling capacity	kW	28
Nominal heating capacity	kW	31,5
Electric absorption	W	1200
Max air flow <sup>(1)</sup>	m <sup>3</sup> /h	4330
Min air flow <sup>(1)</sup>	m <sup>3</sup> /h	3730
Standard fan prevalence	Pa	170
Max fan prevalence	Pa	250
Max-Min sound pressure level at 1.4 m <sup>(1)</sup>	dB(A)	57 / 50
Max-Min sound power level <sup>(1)</sup>	dB(A)	75 / 68
Power supply		230/1/50Hz
Gas connections		7/8"
Liquid connections		1/2"
Condensate drain diameter	mm	32

<sup>(1)</sup> Values relating to Max and Min speed of 7 levels that can be set from the remote control

TECHNICAL DATA SHEET	UM	DUCT AIR OUTDOOR UNIT
Cooling capacity <sup>(1)</sup>	kW	28,50
Nominal absorbed power	kW	12,23
EER	W/W	2,33
Thermal capacity <sup>(2)</sup>	kW	28,50
Nominal absorbed power	kW	7,68
COP	W/W	3,71
Max thermal capacity	kW	31,50
Nominal absorbed power	kW	8,73
COP	W/W	3,61
Power supply		380V/3+N/50Hz
Maximum electric current	A	18,40
Refrigerant (GWP)		R410A
Refrigerant quantity	kg	6,5
Compressor	n.	1 / Rotativo DC inverter
Max sound pressure level at 1 m	dB(A)	60
Max fan air flow	m <sup>3</sup> /h	11000
Capacity of connectable indoor units	%	16
Gas connections		3/8"
Liquid connections		7/8"

<sup>(1)</sup> Cooling capacity tested in accordance with ISO 5151 - Standard outdoor temperature 35 °C DB, 24 °C BU and indoor temperature 27 °C DB, 19 °C BU.

<sup>(2)</sup> Heating capacity tested in accordance with ISO 5151 - Standard outdoor temperature 7 °C DB, 6 °C BU and indoor temperature 20 °C DB, 15 °C BU.

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### DUCT AIR OUTDOOR UNIT HCV 2806

Heat capacity table at various temperatures

CR	Outdoor temperature		Indoor temperature °CDB											
			16		18		20		21		22		24	
	°C DB	°C WB	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-19.8	-20	25.80	8.81	25.70	8.90	25.60	9.00	25.60	9.05	25.60	9.11	25.50	9.21
	-18.8	-19	26.20	8.83	26.10	8.92	26.00	9.02	26.00	9.06	26.00	9.12	25.90	9.22
	-16.7	-17	26.60	8.84	26.50	8.93	26.50	9.03	26.40	9.09	26.40	9.14	26.30	9.03
	-13.7	-15	27.00	8.86	26.90	8.95	26.90	9.05	26.80	9.10	26.80	9.15	26.70	8.85
	-11.8	-13	27.40	8.87	27.30	8.97	27.30	9.06	27.20	9.12	27.20	9.16	26.70	8.68
	-9.8	-11	27.60	8.88	27.60	8.98	27.50	9.07	27.50	9.12	27.40	9.17	26.70	8.59
	-9.5	-10	27.80	8.89	27.70	8.98	27.70	9.07	27.60	9.13	27.60	9.18	26.70	8.52
	-8.5	-9.1	28.10	8.90	28.10	8.99	28.00	9.09	27.90	9.14	27.90	9.19	26.70	8.40
	-7	-7.6	30.30	8.91	30.20	8.99	30.20	9.09	30.10	9.47	29.10	9.01	26.70	8.13
	-5	-5.6	30.70	8.92	30.60	9.00	30.60	9.09	30.30	9.79	29.10	9.32	26.70	8.41
	-3	-3.7	31.30	8.93	31.20	9.00	31.20	8.80	30.30	9.21	29.10	9.79	26.70	8.84
	0	-0.7	32.10	8.95	33.90	9.01	31.50	8.55	30.30	9.69	29.10	9.24	26.70	8.30
	3	2.2	34.20	9.51	33.90	8.78	31.50	8.31	30.30	8.91	29.10	8.51	26.70	7.69
	5	4.1	36.30	9.01	33.90	8.36	31.50	7.91	30.30	8.14	29.10	7.78	26.70	7.08
	7	6	36.30	8.52	33.90	7.93	31.50	7.41	30.30	7.12	29.10	6.82	26.70	6.25
9	7.9	36.30	8.03	33.90	7.51	31.50	6.98	30.30	6.72	29.10	6.46	26.70	5.96	
11	9.8	36.30	7.52	33.90	7.04	31.50	6.59	30.30	6.37	29.10	6.14	26.70	5.70	
13	11.8	36.30	7.04	33.90	6.65	31.50	6.25	30.30	6.06	29.10	5.86	26.70	5.48	
15	13.7	36.30	6.70	33.90	6.36	31.50	6.00	66.30	5.83	29.10	5.66	26.70	5.32	
90%	-19.8	-20	25.50	8.95	25.40	9.03	25.30	9.13	25.30	9.18	25.30	9.24	24.00	8.38
	-18.8	-19	25.70	8.96	25.60	9.04	25.50	9.14	25.50	9.19	25.50	9.20	24.00	8.29
	-16.7	-17	26.10	8.97	26.00	9.05	26.00	9.15	25.90	9.20	25.90	9.02	24.00	8.12
	-13.7	-15	26.50	8.98	26.40	9.07	26.40	9.17	26.30	9.21	26.20	8.84	24.00	7.96
	-11.8	-13	26.90	9.00	26.80	9.09	26.80	9.18	26.70	9.10	26.20	8.66	24.00	7.81
	-9.8	-11	27.30	9.01	27.30	9.11	27.20	9.19	27.20	8.91	26.20	8.49	24.00	7.66
	-9.5	-10	27.50	9.02	27.50	9.11	27.40	9.20	27.30	8.83	26.20	8.41	24.00	7.58
	-8.5	-9.1	27.70	9.03	27.60	9.12	27.60	9.18	27.30	8.75	26.20	8.33	24.00	7.52
	-7	-7.6	28.00	9.04	28.00	9.13	27.90	9.05	27.30	8.63	26.20	8.22	24.00	7.41
	-5	-5.6	30.20	9.06	30.10	9.14	28.40	8.74	27.30	8.34	26.20	7.96	24.00	7.20
	-3	-3.7	30.60	9.07	30.50	9.15	28.40	9.04	27.30	8.63	26.20	8.24	24.00	7.44
	0	-0.7	31.20	9.08	30.50	9.16	28.40	9.50	27.30	9.07	26.20	8.66	24.00	7.83
	3	2.2	32.70	9.10	30.50	9.00	28.40	8.26	27.30	7.89	26.20	7.53	24.00	6.83
	5	4.1	32.70	8.87	30.50	8.22	28.40	7.57	27.30	7.25	26.20	6.94	24.00	6.34
	7	6	32.70	7.71	30.50	7.17	28.40	6.65	27.30	6.39	26.20	6.14	24.00	5.64
9	7.9	32.70	7.24	30.50	6.78	28.40	6.31	27.30	6.09	26.20	5.86	24.00	5.42	
11	9.8	32.70	6.82	30.50	6.41	28.40	6.01	27.30	5.81	26.20	5.62	24.00	5.23	
13	11.8	32.70	6.44	30.50	6.09	28.40	5.75	27.30	5.57	26.20	5.40	24.00	5.06	
15	13.7	32.70	6.18	30.50	5.86	28.40	5.55	27.30	5.40	26.20	5.25	24.00	4.94	
80%	-19.8	-20	25.40	8.98	25.30	9.08	25.20	8.77	24.20	8.37	23.30	7.97	21.30	7.20
	-18.8	-19	25.60	8.99	25.50	9.08	25.20	8.69	24.20	8.28	23.30	7.89	21.30	7.13
	-16.7	-17	26.00	9.00	25.90	9.10	25.20	8.50	24.20	8.11	23.30	7.73	21.30	6.98
	-13.7	-15	26.40	9.02	26.30	9.11	25.20	8.34	24.20	7.95	23.30	7.58	21.30	6.85
	-11.8	-13	26.80	9.04	26.70	8.94	25.20	8.17	24.20	7.79	23.30	7.43	21.30	6.72
	-9.8	-11	27.20	9.05	27.10	8.76	25.20	8.02	24.20	7.65	23.30	7.30	21.30	6.60
	-9.5	-10	27.40	9.06	27.10	8.67	25.20	7.93	24.20	7.57	23.30	7.22	21.30	6.53
	-8.5	-9.1	27.60	9.07	27.10	8.60	25.20	7.87	24.20	7.51	23.30	7.16	21.30	6.48
	-7	-7.6	27.90	9.08	27.10	8.47	25.20	7.76	24.20	7.41	23.30	7.06	21.30	6.39
	-5	-5.6	29.10	8.90	27.10	8.20	25.20	7.52	24.20	7.18	23.30	6.86	21.30	6.21
	-3	-3.7	29.10	9.20	27.10	8.48	25.20	7.78	24.20	7.43	23.30	7.09	21.30	6.44
	0	-0.7	29.10	9.67	27.10	8.92	25.20	8.18	24.20	7.82	23.30	7.47	21.30	6.78
	3	2.2	29.10	8.40	27.10	7.75	25.20	7.13	24.20	6.82	23.30	6.52	21.30	5.93
	5	4.1	29.10	7.68	27.10	7.13	25.20	6.59	24.20	6.32	23.30	6.06	21.30	5.55
	7	6	29.10	6.73	27.10	6.29	25.20	5.84	24.20	5.62	23.30	5.41	21.30	4.98
9	7.9	29.10	6.38	27.10	5.99	25.20	5.60	24.20	5.41	23.30	5.21	21.30	4.84	
11	9.8	29.10	6.07	27.10	5.72	25.20	5.38	24.20	5.21	23.30	5.04	21.30	4.71	
13	11.8	29.10	5.79	27.10	5.48	25.20	5.19	24.20	5.04	23.30	4.89	21.30	4.59	
15	13.7	29.10	5.59	27.10	5.31	25.20	5.05	24.20	4.92	23.30	4.78	21.30	4.52	

CR: Combination ratio

TC: Total heat capacity (kW)

PI: Absorbed Power (compressor + motor fan) (kW)